

Propper's Vapor Line® Steam Sterilization Integrator

Product Description

The **Vapor Line** Integrator is a physicochemical steam sterilization monitor which relies on the migration of a dark colored chemical melt along a paper wick to signal sterilizing (green for pass) or non-sterilizing (red for fail) exposure conditions. The extent to which the chemical melt travels along the wick (length of run) is quite reproducible and depends on: 1) the presence of saturated steam, 2) the exposure temperature and 3) the time of exposure. These are the three critical variables of steam sterilization. The **Vapor Line** Integrator will accurately monitor all variables and integrate the effects of each into a stable, easy-to-read, dark color bar display. **Vapor Line** will literally *PASS* or *FAIL* the steam-processed load...no color interpretation of the bar is required.

Performance Testing

Objective: A series of steam sterilizer cycle tests was conducted in order to demonstrate the performance reproducibility of the **Vapor Line** Integrator by itself and in conjunction with **SteriGage**®, a similar commercial integrator. Repetitive cycle testing was performed for several exposure times at 250°F gravity displacement and 272°F prevacuum sterilizer conditions. After processing, the length of run for each indicator color bar was measured and the integrating ranges were determined for all test conditions. The **Vapor Line** and **SteriGage** performances were then compared.

Test Protocol: Sixty **Vapor Line** and sixty **SteriGage** Integrators were taken randomly from single lots of commercial product. Individual test packs were constructed from twelve huckaback towels, each folded in quarters. Several **Vapor Line** and **SteriGage** Integrators were centrally positioned in each pack between the folded towels. The resulting test packs were loosely taped to yield a 9 in. x 12 in. x 3 in. configuration.

All cycle testing was conducted in a 79 liter steam autoclave with capabilities for prevacuum (pulsed) and gravity displacement modes. Chamber heat-up times ranged from 45 to 60 seconds for the prevacuum and 2 to 2.5 minutes for gravity displacement cycles. A total of ten **Vapor Line** and ten **SteriGage** Integrators were tested at each exposure condition.